

MULE FUEL

Official NORTHERN BREWER Instructional Document

What's Crackin' Homebrewers? Refreshing to its core, the body of Mule Fuel dances and jukes, light and limber as the legend it honors. Its brilliant head sweeps tight lacing across the pale golden draft. Rushing up from the base, medium carbonation carries subtle, sweet malt notes to intercept the faintest ale esters. The Mule plays with a clean palate—its nimble malt backbone sprints between barely-detectable hop bitterness, leaping into a dry, agile finish.

O.G: 1.045 READY: 4 WEEKS

2 weeks primary, 2 weeks bottle conditioning

KIT INVENTORY:

MAILLARD MALTS™ EXTRACTS & OTHER FERMENTABLES

- 3.15 lbs Gold malt syrup
- 3 lbs Golden Light DME

HOPTIMUS REX™ PREMIUM HOPS & OTHER FLAVORINGS

- 1 oz Hallertau (60 min)

YEAST

- **DRY YEAST (DEFAULT):** Safale US-05 Ale Yeast. Optimum temp: 59°-75° F
- **LIQUID YEAST OPTION:** Wyeast 1056 American Ale. Apparent attenuation: 73-77%. Flocculation: low-medium. Optimum temp: 60°-72° F.

PRIMING SUGAR

- 5 oz Priming Sugar (save for Bottling Day)

These simple instructions are basic brewing procedures for this Northern Brewer extract beer kit; please refer to your starter kit instructions for specific instructions on use of equipment and common procedures such as siphoning, sanitizing, bottling, etc.

For more detailed extract brewing instructions, please visit www.northernbrewer.com

BEFORE YOU BEGIN ...

MINIMUM REQUIREMENTS

- Homebrewing starter kit for brewing 5 gallon batches
- Boiling kettle of at least 3.5 gallons capacity
- Approximately two cases of either 12 oz or 22 oz pry-off style beer bottles

UNPACK THE KIT

- Refrigerate the yeast upon arrival
- Locate the Kit Inventory (above) - this is the recipe for your beer, so keep it handy
- Doublecheck the box contents vs. the Kit Inventory
- Contact us immediately if you have any questions or concerns!

PROCEDURE

A FEW DAYS BEFORE BREWING DAY

1. Remove the liquid Wyeast pack from the refrigerator, and "smack" as shown on the back of the yeast package. Leave it in a warm place (70-80° F) to incubate until the pack begins to inflate. Allow at least 3 hours for inflation; some packs may take up to several days to show inflation. Do not brew with inactive yeast - we can replace the yeast, but not a batch that fails to ferment properly. If you are using dry yeast, no action is needed.

ON BREWING DAY

3. Collect and heat 2.5 gallons of water.

4. Bring to a boil and add the 3.15 Gold malt syrup and 3 lbs Golden Light DME. Remove the kettle from the burner and stir in the malt extracts.

5. Return wort to boil. The mixture is now called "wort", the brewer's term for unfermented beer.

- Add 1 oz Hallertau hops and boil for 60 minutes.

6. Cool the wort. When the 60-minute boil is finished, cool the wort to approximately 100° F as rapidly as possible. Use a wort chiller, or put the kettle in an ice bath in your sink.

7. Sanitize fermenting equipment and yeast pack. While the wort cools, sanitize the fermenting equipment - fermenter, lid or stopper, fermentation lock, funnel, etc - along with the yeast pack and a pair of scissors.

8. Fill primary fermenter with 2 gallons of cold water, then pour in the cooled wort. Leave any thick sludge in the bottom of the kettle.

9. Add more cold water as needed to bring the volume to 5 gallons.

10. Aerate the wort. Seal the fermenter and rock back and forth to splash for a few minutes, or use an aeration system and diffusion stone.

11. **OPTIONAL:** if you have our Mad Brewer Upgrade or Gravity Testing kits, measure specific gravity of the wort with a hydrometer and record.

12. Add yeast once the temperature of the wort is 78°F or lower (not warm to the touch). Use the sanitized scissors to cut off a corner of the yeast pack, and carefully pour the yeast into the primary fermenter.

13. Seal the fermenter. Add approximately 1 tablespoon of water to the sanitized fermentation lock. Insert the lock into rubber stopper or lid, and seal the fermenter.

14. Move the fermenter to a warm, dark, quiet spot until fermentation begins.

BEYOND BREWING DAY, WEEKS 1-2

15. Active fermentation begins. Within approximately 48 hours of Brewing Day, active fermentation will begin - there will be a cap of foam on the surface of the beer, and you may see bubbles come through the fermentation lock.

16. Active fermentation ends. Approximately 1-2 weeks after brewing day, active fermentation will end: the cap of foam falls back into the new beer, bubbling in the fermentation lock slows down or stops.

BOTTLING DAY—ABOUT 2 WEEKS AFTER BREWING DAY

17. Sanitize siphoning and bottling equipment.

18. Mix a priming solution (a measured amount of sugar dissolved in water to carbonate the bottled beer) of $\frac{2}{3}$ cup priming sugar in 16 oz water. Bring the solution to a boil and pour into the bottling bucket.

19. Siphon beer into bottling bucket and mix with priming solution. Stir gently to mix—don't splash.

20. Fill and cap bottles.

2 WEEKS AFTER BOTTLING DAY

21. Condition bottles at room temperature for 2 weeks. After this point, the bottles can be stored cool or cold.

22. Serving. Pour into a clean glass, being careful to leave the layer of sediment at the bottom of the bottle. Cheers!